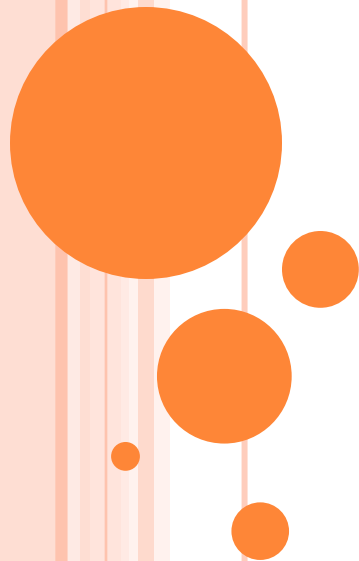


OPTIONS GREEKS: THE VEGA

By
Kim Klaiman
SteadyOptions.com



GENERAL

- Vega is the measurement of an option's sensitivity to changes in the volatility of the underlying asset.
- Vega represents the amount that an option contract's price changes in reaction to a 1% change in the volatility of the underlying asset.
- Vega changes when there are large price movements (increased volatility) in the underlying asset, and falls as the option approaches expiration.
- In simple terms, vega measures the risk of gain or loss resulting from changes in volatility.

Steady Options



NEGATIVE VS. POSITIVE VEGA

- Vega for all options is always a positive number because options increase in value when volatility increases and decrease in value when volatility declines.
- However, when position Vegas are generated, positive and negative signs appear.
- When you establish a position selling or buying an option, this will result in either a negative sign (for selling) or positive sign (for buying), and the position Vega will depend on net Vegas.



VEGA CHANGES

- Vega is higher on options that have more distant expiration dates.
- Options tend to be more expensive when volatility is higher.
- Thus, whenever volatility goes up, the price of the option goes up and when volatility drops, the price of the option will also fall.



VEGA RISK

- Vega is one of the most important risk metrics an option trader relies upon.
- It is used to estimate the portfolio's overall sensitivity to changes in implied volatility, one of the largest risks the option traders faces.
- For example, a trader with \$1 million of vega knows he will make or lose \$1m dollars for every 1% change in implied volatility.
- Often, a decline in IV (also known as vega risk) will offset the impact of price gains in the underlying stock.



VEGA IMPACT ON OPTIONS STRATEGIES

- Short premium positions like Iron Condors or Butterflies will be negatively impacted by an increase in implied volatility, which generally occurs with downside market moves.
- Start vega negative positions with a slightly short delta bias and vega positive positions with long delta bias.
- Use vega positive strategies like calendars when IV is low and vega negative strategies like Iron Condors when IV is high.



LIST OF VEGA POSITIVE STRATEGIES

- Long Call
- Long Put
- Long Straddle
- Long Strangle
- Long Calendar Spread
- Vertical Debit Spread



LIST OF VEGA NEGATIVE STRATEGIES

- Short Call
- Short Put
- Short Straddle
- Short Strangle
- Vertical Credit Spread
- Covered Call Write
- Covered Put Write
- Iron Condor
- Butterfly

